

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D117-837 REV. B AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D117-837 REV. 1  
REF. TCCA STC: SH13-22  
REF. FAA STC: SR03353NY

## 1.0 Purpose

The purpose of this Dart Service Instruction (DSI) is to provide instructions to replace the D4911-3 Bracket with a D4911-5 Bracket for customers who already have D117-837-011 at CHG 002 or CHG 003. The D4911-5 Bracket will better distribute the drag load from the D117-837-011 Heli-Utility-Basket to the airframe in flight.

## 2.0 Removal of D4911-3 Bracket

- 2.1 For D117-837-011 Heli-Utility-Baskets at CHG 003, temporarily remove the D4794-043 Strut Assy from the D4911-1/-3 Brackets by disconnecting 2x MS17984-C405 quick release pin.
- 2.2 For D117-837-011 Heli-Utility-Baskets at CHG 002, temporarily remove the D4794-041 Strut Assy from the D4911-1/-3 Brackets by disconnecting AN4-7 bolts and associated Hardware from both ends of D4794-041 Strut Assy.
- 2.3 Remove the D4911-3 Bracket from airframe by removing 2x MS27039-1-08 Screws and 2x NAS1149F0332P washers.
- 2.4 Inspect the underlying aircraft structure for damage. If cracking/buckling of the aircraft structure is observed, repair per BK117 Aircraft Maintenance Manual Chapter 21-1.

## 3.0 Installation of D4911-5 Bracket

- 3.1 Temporarily remove LH/RH side cabin outboard floor panels as applicable.
- 3.2 Using D4911-3 Bracket as a template, transfer 2x  $\varnothing 0.196$ " (#9 drill) holes from D4911-3 to new D4911-5 Bracket as shown in Figure 1.
- 3.3 Using the D4911-5 as a template, remove two rivets at STA 156.3 (3970) under the D4911-5 Bracket. Transfer drill these rivet holes to the D4911-5 Bracket as shown in Figure 1. Enlarge rivet holes to  $\varnothing 0.196$ " (#9 drill) in the aircraft rib and on the D4911-5 Bracket. Transfer  $\varnothing 0.098$ " (#40 drill) for MS21069L3 anchor nut and c/sink/dimple holes for NAS1097AD3-(4) rivet as shown in Figure 2. Deburr and touch-up aircraft holes with Alodine 1200/1201 per MIL-C-5541.
- 3.4 Install 2x MS21069L3 anchor nuts using NAS1097AD3-(4) rivets as shown in Figure 2.
- 3.5 Install D4911-5 Bracket into the aircraft ribs using 4x MS27039-1-08 screws and 4x NAS1149F0332P washers as shown in Figure 1. Torque screws to 20-25 in-lbs (2.3-2.8 N-m).
- 3.6 For D117-837-011 Heli-Utility-Baskets at CHG 003, install D4794-043 Strut Assy into D4911-1/-5 Brackets by connecting 2x MS17984-C405 quick release pin per ICA-D117-837 Rev.1.
- 3.7 For D117-837-011 Heli-Utility-Baskets at CHG 002, install D4794-041 Strut Assy into D4911-1/-5 Brackets by installing AN4-7 bolt, 2x NAS1149F0463P washer, AN310C4 nut, MS24665-151 cotter pin in both ends of D4794-041 Strut Assy per ICA-D117-837 Rev.0.
- 3.8 Re-install LH/RH side cabin outboard floor panels as applicable.
- 3.9 Repeat steps 3.1 to 3.8 for opposite side of the aircraft if the aircraft has been configured with basket provisions on both sides.

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY:

D. SHEPHERD (DE # 02)

DATE: 14.09.03  
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ISSUE NO.: 1

A	NEW ISSUE	RF	14.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
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MFG. APPR.	N/A	DSI 9706	SHEET 1 OF 3
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#### 4.0 Parts List

For D117-837-011 Heli-Utility-Baskets @ CHG 004, the Parts List in ICA-D117-837 and IIN-D117-837 should be updated as follows:

##### IS

Qty -011	Part Number	Description
X	D117-837-011	HELI-UTILITY-BASKET, LH/RH
2	D4911-5	BRACKET (REPLACES D4911-3)
8	MS21069L3	ANCHOR NUT
8	MS27039-1-08	SCREW
16	NAS1097AD3-4	RIVET
10	NAS1149F0332P	WASHER

##### WAS

Qty -011	Part Number	Description
X	D117-837-011	HELI-UTILITY-BASKET, LH/RH
2	D4911-3	BRACKET
4	MS21069L3	ANCHOR NUT
4	MS27039-1-08	SCREW
8	NAS1097AD3-4	RIVET
6	NAS1149F0332P	WASHER

For D117-837-011 Heli-Utility-Baskets @ CHG 002 or CHG 003, the DSI 9706-011 Basket Modification Kit is available from Dart.

Qty -011	Part Number	Description
X	DSI 9706-011	BRACKET MODIFICATION KIT
2	D4911-5	BRACKET
8	MS21069L3	ANCHOR NUT
8	MS27039-1-08	SCREW
16	NAS1097AD3-4	RIVET
8	NAS1149F0332P	WASHER

#### 5.0 Weight & Balance


This DSI has a negligible effect on Weight & Balance

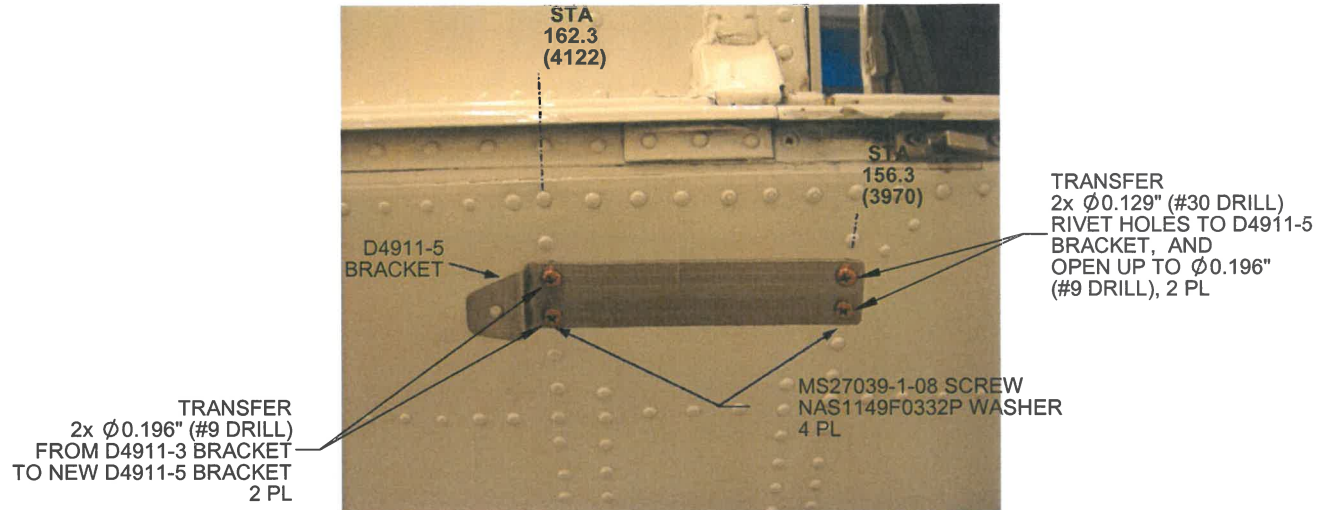
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**FIGURE 1. D4911-5 BRACKET INSTALLATION**  
(RH INSTALLATION SHOWN, LH OPPOSITE)

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